Claims

1. A transposon TnKGloxP, characterized in comprising outer end transposase recognition sequences having a base sequence of SEQ ID NO: 3 on one end, its reverse-complementary sequence on the other end, loxP site expressed as SEQ ID NO: 4, Km^R gene expressed as SEQ ID NO:5 and GFP gene expressed as SEQ ID NO:6.

2. The transposon TnKGloxP according to Claim 1, chracterized in comprising the base sequence of SEQ ID NO:1.

3. A transposon TnCloxP characterized in comprising outer end transposase recognition sequences having a base sequence of SEQ ID NO: 3 on one end, its reverse-complementary sequence on the other end, loxP site expressed as SEQ ID NO:4 and Cm^R gene expressed as SEQ ID NO:7.

4. The transposon TnCloxP according to Claim 3, characterized in comprising the base sequence SEQ ID NO:2.

5. A method for constructing novel strains containing deletion of a specific chromosomal site, characterized in comprising the steps of:

(1) preparing two transposons comprising outer end transposase recognition sequences, loxP site and different selectable markers;

(2) inserting the above two transposons, respectively, into random positions of different microbial chromosomes and determining the each inserted sites;

(3) integrating the two microbial chromosomes by P1 phage transduction to position the two transposons comprising different selectable markers on one chromosome; and

(4) deleting a chromosomal site between the two loxP sites by expressing Cre gene through Cre expression vector introduced.

6. The method for constructing novel strains according to Claim 5, wherein the above two transposons are transposon TnKGloxP according to Claim 1 or 2, or transposon TnCloxP according to Claim 3 or 4.

7. The method for constructing novel strains according to Claim 5, wherein,

- transponon TnKGloxP comprising a base sequence of SEQ ID NO:1 is prepared by preparing a vector pKGloxP by inserting GFP gene into a linear pKKloxP vector having Km^R and loxP using ligase; separating a DNA fragment comprising Km^R, GFP and loxP sites by treating the above pKGloxP vector with restriction enzyme; preparing pTnKGloxP vector by inserting the above separated DNA fragment into the linear pMODTM<MCS> vector using ligase; performing PCR of the above pTnKGloxp vector, and

- transposon TnCloxP comprising base a sequence of SEQ ID NO: 2 is prepared by separating a DNA fragment comprising Cm^R and loxP sites by treating the above pKGloxP vector comprising Cm^R and loxP sites with restriction enzyme; preparing pTnCloxP vector by inserting the above separated DNA fragment into the linear pMODTM<MCS> vector using ligase; and performing PCR of the above pTnCloxP vector.

8. The method for constructing novel strains according to Claim 5 or 7, characterized in additionally comprising the steps of:

- selecting two mutants from the mutants containing deletion of a specific chromosomal site, and performing P1 phage transduction using one of the selected mutants as the donor and the other as recipient, to constructing a new mutant containing all chromosomal deletion sites of the above two mutant;
- using the above obtained mutant again as P1 phage recipient, and the already prepare mutant containing deletion of a specific chromosomal site as donor to perform P1 phage transduction continuously and repeatedly; and
- removing the chromosomal deletion site of other donor mutant from the chromosome of the obtained mutant continuously to reduce the chromosome of the obtained mutant by degrees.